# Analysis of Output Dose of The Photon Beam LINAC Using TRS 398 Protocol in R.S. Ken Saras

**Wandi Wantoro[1], Giner Maslebu[1*], Suryasatriya Trihandaru[1] and Muhamad Hidayatullah[2]**

[1]Physic Department of Universitas Kristen Satya Wacana, Salatiga, Indonesia

[2]Radiotherapy Unit of Rumah Sakit Ken Saras, Ungaran, Indonesia

**Abstract.** Analysis of output dose of the photon beam LINAC in Radiotherapy unit of R.S. Ken Saras using TRS 398 protocol has done. This analysis was done to determine whether the output dose from photon beam LINAC in Radiotherapy unit of R.S. Ken Saras has an output dose deviation smaller than 2% or not. The measurement using Scdx-Wellhöfer FC65-G/IC70 ionization chamber in the solid water phantom with 100 cm SSD and 10 cm × 10 cm field size. From the calculation, it was found that the average output dose of the photon beam at the reference depth dose (DW,Q(zref)) was 0.668 cGy/MU and the average output dose of the photon beam at maximum depth dose (DW,Q(zmax)) was 1.003 cGy/MU. The output dose has 0.7% output dose deviation so it is concluded that the LINAC at Radiotherapy unit of R.S. Ken Saras is still properly for radiotherapy activities.

**Keywords**: Output Dose, TRS 398, Output Dose Deviation.

[*]Corresponding author: ginmaslebu@gmail.com